

Soil Samples Results

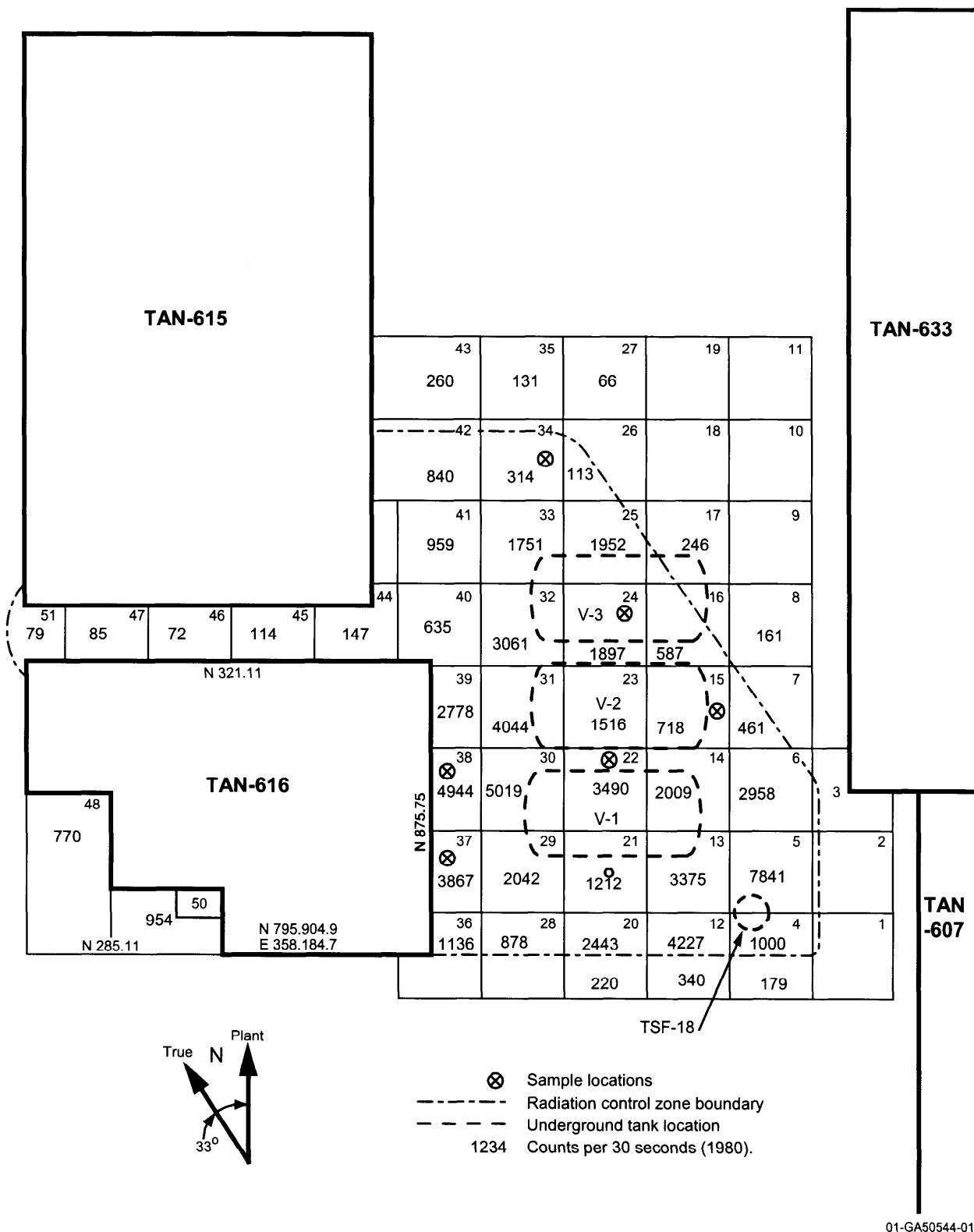


Figure H-5. 1983 grid network for surface radiation survey and sample locations of V-Tanks.

Table H-34. 1983 digital surface survey data, averaged over each square (counts/30 s).

Square Number	Inside Ribbon	Outside Ribbon	Square Number	Inside Ribbon	Outside Ribbon
1	Not staked	—	27	—	66 ± 6
2	Not staked	—	28	878 ± 21	—
3	Not staked	—	29	$2,042 \pm 32$	—
4	$1,000 \pm 22$	179 ± 9	30	$5,019 \pm 50$	—
5	$7,841 \pm 63$	—	31	$4,044 \pm 45$	—
6	$2,958 \pm 38$	—	32	$3,061 \pm 39$	—
7	461 ± 15	333 ± 13	33	$1,751 \pm 30$	—
8	—	161 ± 9	34	314 ± 13	—
9	Not staked	—	35	—	131 ± 8
10	Not staked	—	36	$1,136 \pm 24$	—
11	Not staked	—	37	$3,967 \pm 45$	—
12	$4,227 \pm 46$	340 ± 13	38	$3,944 \pm 50$	—
13	$3,375 \pm 41$	—	39	$2,778 \pm 37$	—
14	$2,009 \pm 32$	—	40	635 ± 18	—
15	718 ± 19	—	41	959 ± 22	—
16	587 ± 17	231 ± 11	42	840 ± 20	—
17	—	246 ± 11	43	—	260 ± 11
18	Not staked	—	44	147 ± 9	—
19	Not staked	—	45	114 ± 8	—
20	$2,443 \pm 35$	220 ± 10	46	72 ± 6	—
21	$1,212 \pm 25$	—	47	85 ± 7	—
22	$3,490 \pm 42$	—	48	770 ± 20	—
23	$1,516 \pm 27$	—	49	Not staked	—
24	$1,897 \pm 31$	—	50	945 ± 22	—
25	$1,952 \pm 31$	—	51	79 ± 6	—
26	113 ± 8	—			

Note: Error is one standard deviation of the average value of the two measurements for each square.

Note: Data are presented in counts/30 seconds. Readings should be doubled to convert to counts/minute.

— Inferred to mean nondetect.

Table H-35. 1983 trench soil sampling results in V-Tank area – gamma-emitter activity (pCi/g).

Square	Depth (in.)	Cesium -137	Cobalt-60	Potassium-40	Cesium-134	Europium-154
15	Surface	79 ± 1	38 ± 1	9 ± 1	—	1.3 ± 0
	6	307 ± 3	376 ± 3	14 ± 2	—	—
	12	112 ± 2	64 ± 1	13 ± 2	—	—
	18	15 ± 1	0.8 ± 0.2	14 ± 2	—	—
	24	7 ± 1	0.5 ± 0.1	16 ± 2	—	—
	30	10 ± 1	0.6 ± 0.2	12 ± 2	—	—
	36	15 ± 1	14 ± 1	18 ± 3	—	—
22	Surface	1,074 ± 4	25 ± 3	9 ± 2	—	—
	6	2.0 ± 0.2	6.2 ± 0.5	10 ± 2	—	—
	12	16 ± 1	10 ± 1	14 ± 2	—	—
	18	2.9 ± 0.2	0.4 ± 0.1	10 ± 2	—	—
	24	2.9 ± 0.2	0.32 ± 0.08	10 ± 2	—	—
	B30	212 ± 2	460 ± 3	11 ± 2	—	—
To be revised	A36	1.7 ± 0.2	1.2 ± 0.2	4 ± 1	—	—
	Surface	175 ± 2	32 ± 2	11 ± 2	0.9 ± 0.2	—
24	6	40 ± 1	1.4 ± 0.2	6 ± 1	—	—
	12	54,120 ± 60	176 ± 7	17 ± 3	8 ± 4	—
	18	28 ± 1	0.5 ± 0.1	10 ± 2	—	—
	24	2.5 ± 0.2	0.22 ± 0.07	4.7 ± 0.9	—	—
	30	3.3 ± 0.3	0.8 ± 0.2	11 ± 2	—	—
	36	2.8 ± 0.4	0.7 ± 0.2	14 ± 2	—	—
	Surface	106 ± 2	6.2 ± 0.5	8 ± 1	0.4 ± 0.2	—
34	6	50 ± 1	16.2 ± 0.7	10 ± 2	—	—
	12	38 ± 1	1.2 ± 0.2	11 ± 2	—	—
	18	2.5 ± 0.2	—	9 ± 1	—	—
	24	0.2 ± 0.1	—	12 ± 2	—	—
	30	0.5 ± 0.1	—	14 ± 2	—	—
	36	1.7 ± 0.2	20 ± 1	10 ± 2	—	—
37	Surface	179 ± 2	52 ± 1	5 ± 1	—	—
	6	515 ± 3	30 ± 1	10 ± 2	—	—
	12	0.24 ± 0.06	1.1 ± 0.2	9 ± 1	—	—
	18	45,800 ± 100	500 ± 10	—	16 ± 6	—
	24	16 ± 1	18 ± 1	14 ± 2	—	—
	30	420 ± 3	17 ± 1	9 ± 1	—	—
	36	20 ± 1	15 ± 1	10 ± 2	—	—

Table H-35. (continued).

Square	Depth (in.)	Cesium -137	Cobalt-60	Potassium-40	Cesium-134	Europium-154
38	Surface	$1,242 \pm 5$	610 ± 4	6 ± 2	2 ± 1	7 ± 1
	6	49 ± 1	2.9 ± 0.3	10 ± 2	—	—
	12	48 ± 1	4.6 ± 0.3	7 ± 1	—	—
	18	0.2 ± 0.1	0.2 ± 0.1	12 ± 2	—	—
	24	0.20 ± 0.5	—	8 ± 1	—	—
	30	—	—	5 ± 1	—	—
	36	3.0 ± 0.2	1.2 ± 0.2	4 ± 1	—	—

— Inferred to mean nondetect

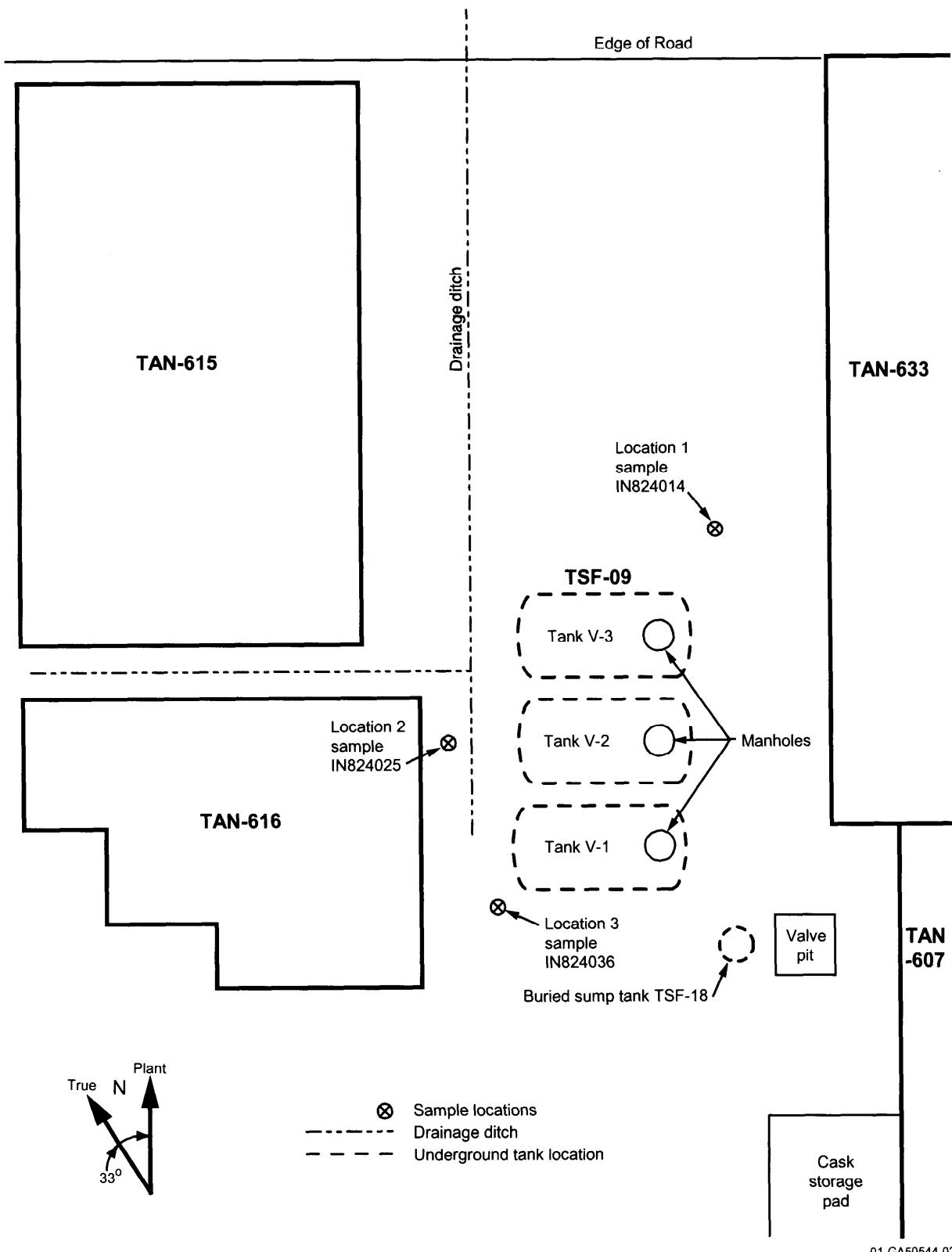


Figure H-6. TSF-09/18 1988 DOE Environmental Survey sample locations.

Table H-36. TSF-09/18 1988 DOE Environmental Survey sample analytical data from 0.3 to 0.3 m (1 to 2 ft) (data exceeding the risk-based and/or background values are underlined^a).

Field Measurements	Location 1 IN824014	Location 2 IN824025	Location 3 IN824036	90 th Percentile of Elements at TAN	Risk-Based Concentrations
Beta/Gamma Analytes	0.5 mR/hr	2 mR/hr	0.2 mR/hr	N/A	N/A
Aluminum	10,100 mg/kg	16,300 mg/kg	13,400 mg/kg	20,800 mg/kg	N/A
Arsenic	<u>8.6 mg/kg</u>	<u>8.6 mg/kg</u>	<u>9.9 mg/kg</u>	38.4 mg/kg	80 mg/kg (0.4 mg/kg)
Barium	127 mg/kg	186 mg/kg	168 mg/kg	254 mg/kg	20,000 mg/kg
Beryllium	<u>1.7 mg/kg</u>	<u>1.8 mg/kg</u>	<u>1.7 mg/kg</u>	1.5 mg/kg	1,000 mg/kg (0.1 mg/kg)
Cadmium	1 mg/kg	1.1 mg/kg	1.1 mg/kg	4.6 mg/kg	100 mg/kg
Calcium	<u>148,000 mg/kg</u>	92,300 mg/kg	105,000 mg/kg	121,000 mg/kg	N/A
Chromium	22 mg/kg	32 mg/kg	25 mg/kg	38.9 mg/kg	N/A
Cobalt	4.9 mg/kg	7 mg/kg	6.3 mg/kg	13.3 mg/kg	N/A
Copper	14 mg/kg	22 mg/kg	20 mg/kg	27.4 mg/kg	10,000 mg/kg
Iron	12,700 mg/kg	19,100 mg/kg	16,500 mg/kg	27,000 mg/kg	N/A
Lead	8.1 mg/kg	14 mg/kg	13 mg/kg	55.6 mg/kg	N/A
Magnesium	11,600 mg/kg	12,900 mg/kg	12,300 mg/kg	14,300 mg/kg	N/A
Manganese	250 mg/kg	410 mg/kg	409 mg/kg	490 mg/kg	30,000 mg/kg
Mercury	<u>0.12 mg/kg</u>	<u>0.08 mg/kg</u>	<u>0.08 mg/kg</u>	0.06 mg/kg	N/A
Nickel	22 mg/kg	30 mg/kg	28 mg/kg	42.5 mg/kg	5,000 mg/kg
Potassium	2,500 mg/kg	3,800 mg/kg	3,000 mg/kg	5,480 mg/kg	N/A
Silver	0.96 mg/kg	1.1 mg/kg	1.1 mg/kg	3.5 mg/kg	1,000 mg/kg
Sodium	<u>660 mg/kg</u>	<u>613 mg/kg</u>	472 mg/kg	522 mg/kg	N/A
Vanadium	33 mg/kg	48 mg/kg	39 mg/kg	53.7 mg/kg	2,000 mg/kg
Zinc	67 mg/kg	101 mg/kg	98 mg/kg	182 mg/kg	80,000 mg/kg

a. (INEEL 1994).

N/A = No concentration data are available.

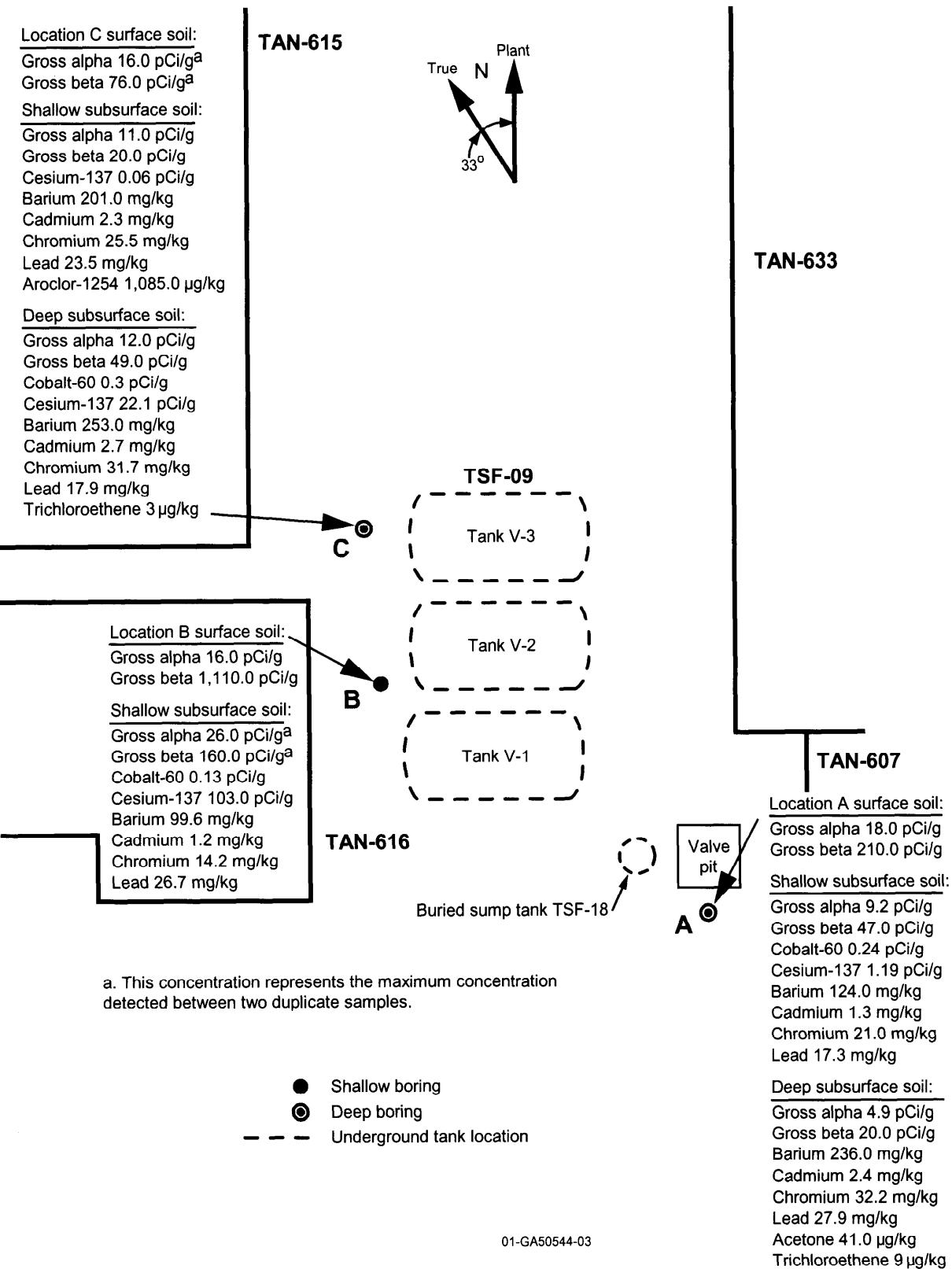


Figure H-7. 1993 Phase II Track 2 environmental sample analytical results from TSF-09/18.

Table H-37. 1993 Track 2 investigation, summary of analytes detected and results.

Sample Number	Sample Location	Sample Depth	Sample Constituent	Sample Activity	Background Concentration
T0920001AB	A	0 to 0.15m (0 to 0.5 ft)	Gross alpha Gross beta	18 ± 3.0 pCi/g 210.0 ± 5.0 pCi/g	19.8 pCi/g ^a 31.7 pCi/g ^a
T0910101AB	A	0 to 0.8 m (0 to 2.5 ft)	Gross alpha Gross beta	9.2 ± 3.5 pCi/g 47.0 ± 3.0 pCi/g	19.8 pCi/g ^a 31.7 pCi/g ^a
T0910101R4			Cobalt-60	0.24 ± 0.03 pCi/g	N/A
T0910101R4			Cesium-137	1.2 ± 0.1 pCi/g	1.24 pCi/g ^a
T0905201AB	A	6.1 to 6.7 m (20 to 22 ft)	Gross alpha Gross beta	4.9 ± 2.7 pCi/g U 20.0 ± 2.0 pCi/g	19.8 pCi/g ^a 31.7 pCi/g ^a
T0905201R4			Gamma	None detected	N/A
T0920101AB	B	0 to 0.15 m (0 to 0.5 ft)	Gross alpha Gross beta	16.0 ± 4.0 pCi/g $1,110.0 \pm 10.0$ pCi/g	19.8 pCi/g ^a 31.7 pCi/g ^a
T0905501AB ^c	B	1.8 to 2.2 m (6 to 7 ft)	Gross alpha Gross beta	26.0 ± 5.0 pCi/g 110.0 ± 5.0 pCi/g	19.8 pCi/g ^a 31.7 pCi/g ^a
T0905602AB ^c	B	1.8 to 2.2 m (6 to 7 ft)	Gross alpha Gross beta	21.0 ± 5.0 pCi/g 160.0 ± 5.0 pCi/g	19.8 pCi/g ^a 31.7 pCi/g ^a
T0905602R4			Cobalt-60	0.13 ± 0.02 pCi/g	N/A
T0905602R4			Cesium-137	103.0 ± 7.4 pCi/g	1.24 pCi/g ^b
T0905602R4			Alpha spec.	0.8 ± 0.2 pCi/g	0.86 to 1.79 pCi/g
T0905602R4			Alpha spec.	0.3 ± 0.2 pCi/g	1.3 pCi/g
T0905602R4			Alpha spec.	0.7 ± 0.1 pCi/g	0.94 to 1.69 pCi/g
T0905602R4			Alpha spec.	0.01 ± 0.05 pCi/g	N/A
T0905602R4			Alpha spec.	0.7 ± 0.1 pCi/g	0.86 to 1.79 pCi/g
T0905602R4			Alpha spcc.	0 ± 0.02 pCi/g	0.0005 to 0.0046 pCi/g
T0905602R4			Alpha spec.	0 ± 0.02 pCi/g	0.018 to 0.049 pCi/g
T0905602R4			Alpha spec.	0.01 ± 0.01 pCi/g	N/A
T0905602R4			Alpha spec.	0.03 ± 0.02 pCi/g	N/A
T0905602R4			Alpha spec.	0.03 ± 0.02 pCi/g	0.002 to 0.19 pCi/g
T0905602R4			Alpha spec.	0.25 ± 0.03 pCi/g	N/A
T0920201AB ^c	C	0 to 0.15 m (0 to 0.5 ft)	Gross alpha Gross beta	16.0 ± 4.0 pCi/g 76.0 ± 3.0 pCi/g	19.8 pCi/g ^a 31.7 pCi/g ^a

Table H-37. (continued).

Sample Number	Sample Location	Sample Depth	Sample Constituent	Sample Activity	Background Concentration
T0920202AB ^c	C	0 to 0.15 m (0 to 0.5 ft)	Gross alpha Gross beta	13.0 ± 3.0 pCi/g 66.0 ± 13.0 pCi/g	19.8 pCi/g ^a 31.7 pCi/g ^a
	C	0 to 0.8 m (0 to 2.5 ft)	Gross alpha Gross beta	11.0 ± 5.0 pCi/g 20.0 ± 2.0 pCi/g	19.8 pCi/g ^a 31.7 pCi/g ^a
T0905601AB			Cesium-137	0.06 ± 0.02 pCi/g	1.24 pCi/g ^b
T0905702R4		(0 to 2.5 ft)			
	C	5.5 to 6.1 m (18 to 20 ft)	Gross alpha Gross beta	12.0 ± 4.0 pCi/g 49.0 ± 3.0 pCi/g	19.8 pCi/g ^a 31.7 pCi/g ^a
T0905701AB	C	5.5 to 6.1 m (18 to 20 ft)	Cobalt-60	0.3 ± 0.0 pCi/g	N/A
T0910201R4			Cesium-137	22.1 ± 1.6 pCi/g	1.24 pCi/g ^b
T0910201R4	A	0.8 to 1.4 m (2.5 to 4.5 ft)	Barium Cadmium Chromium Lead	124.0 mg/kg 1.3 mg/kg 21.0 mg/kg 17.3 mg/kg S	254.0 mg/kg ^d 4.6 mg/kg ^d 38.9 mg/kg ^d 55.6 mg/kg ^d
T0905101	A	6.1 to 6.7 m (20 to 22 ft)	Barium Cadmium Chromium Lead	236.0 mg/kg 2.4 mg/kg 32.2 mg/kg 27.9 mg/kg S	254.0 mg/kg ^d 4.6 mg/kg ^d 38.9 mg/kg ^d 55.6 mg/kg ^d
T0905601	B	1.8 to 2.2 m (6 to 7 ft)	Barium Cadmium Chromium Lead	99.6 mg/kg 1.2 mg/kg 14.2 mg/kg 26.7 mg/kg S	254.0 mg/kg ^d 4.6 mg/kg ^d 38.9 mg/kg ^d 55.6 mg/kg ^d
T0905602	C	0 to 0.8 m (0 to 2.5 ft)	Barium Cadmium Chromium Lead	201.0 mg/kg 2.3 mg/kg 25.5 mg/kg 23.5 mg/kg S	254.0 mg/kg ^d 4.6 mg/kg ^d 38.9 mg/kg ^d 55.6 mg/kg ^d
T0905702	C	5.5 to 6.1 m (18 to 20 ft)	Barium Cadmium Chromium Lead	253.0 mg/kg 2.7 mg/kg 31.7 mg/kg 17.9 mg/kg S	254.0 mg/kg ^d 4.6 mg/kg ^d 38.9 mg/kg ^d 55.6 mg/kg ^d
T0910101	A	0.8 to 1.2 m (2.5 to 4 ft)	Acetone	7 µg/kg J	N/A

Table H-37. (continued).

Sample Number	Sample Location	Sample Depth	Sample Constituent	Sample Activity	Background Concentration
T0910101	A	6.1 to 7.4 m	Acetone	41 $\mu\text{g}/\text{kg}$	N/A
		(20 to 24 ft)	Trichloroethane	9 $\mu\text{g}/\text{kg}$	N/A
T0910201	C	6.1 to 6.7 m	Trichloroethane	3 $\mu\text{g}/\text{kg}$	N/A
		(20 to 22 ft)			
T0905702	C	0 to 0.8 m (0 to 2.5 ft)	Aroclor-1254	1,085 $\mu\text{g}/\text{kg}$	N/A

a. (Anderson 1993).

b. Mean of range for cesium-137 (0.4 to 2.08 pCi/g) taken from DOE-ID (1994), p. E-11.

c. Field duplicate samples.

d. 90th percentile value taken from DOE-ID (1992). J = Indicates an estimated value.

U = The constituent of interest was analyzed for, but was not detected above the minimum detectable activity of the instrumentation. There may or may not be a result provided in the data package. If no result is provided, a "zero" result should not be entered in its place, as the zero may mistakenly be included in statistical calculations performed from the sample results.

S = The value was determined by the method of standard addition (MSA).

N/A = No background concentration data.

Table H-38. Target compound list VOC analytical results for the 1993 TSF-09/18 boring subsurface soil samples.

Analytical parameter	Location A		Location B		S
	Sample number T0910101VL (2.5 to 4 ft)	Sample number T0910101VM (22 to 24 ft)	Sample number T0905601VL ^a (7 to 8 ft)	Sample number T0905602VL ^a (7 to 8 ft)	
chloromethane	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
bromomethane	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
vinyl chloride	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
chloroethane	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
methylene chloride	11 µg/kg U	27 µg/kg U	12 µg/kg U	11 µg/kg U	
acetone	7 µg/kg J	41 µg/kg	12 µg/kg U	11 µg/kg U	
carbon disulfide	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
1,1-dichloroethene	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
1,1-dichloroethane	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
1,2-dichloroethene (total)	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
chloroform	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
1,2-dichloroethane	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
2-butanone	11 µg/kg R	12 µg/kg R	12 µg/kg R	11 µg/kg R	
1,1,1-trichloroethane	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
carbon tetrachloride	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
bromodichloromethane	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
1,2-dichloropropane	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
cis-1,3-dichloropropene	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
trichlorethene	11 µg/kg U	9 µg/kg J	12 µg/kg U	11 µg/kg U	
dibromochloromethane	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
1,1,2-trichloroethane	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	

Table H-38. (continued).

Analytical parameter	Location A		Location B		S
	Sample number T0910101VL (2.5 to 4 ft)	Sample number T0910101VM (22 to 24 ft)	Sample number T0905601VL ^a (7 to 8 ft)	Sample number T0905602VL ^a (7 to 8 ft)	
benzene	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
trans-1,3-dichloropropene	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
bromoform	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
4-methyl-2-pentanone	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
2-hexanone	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
tetrachloroethene	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
1,1,2,2-tetrachloroethane	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
toluene	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
chlorobenzene	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
ethylbenzene	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
styrene	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	
xylenes (total)	11 µg/kg U	12 µg/kg U	12 µg/kg U	11 µg/kg U	

a. Field duplicate sample.

U = Indicates the compound was analyzed for, but not detected.

R = The data are unusable (may or may not be present). Resampling and reanalysis is necessary for verification.

J = Indicates an estimated value.

Table H-39. Target compound list SVOCs analytical results for the 1993 Phase II TSF-09/18 boring subsurface soil

Analytical parameter	Location A		Location B		S
	Sample number T0910101EL 0.8 to 1.2 m (2.5 to 4 ft)	Sample number T0905201EL 6.7 to 7.4 m (22 to 24 ft)	Sample number T0905601EL 1.5 to 1.9 m (5 to 6 ft)	Sample number T0905602EL 1.5 to 1.9 m (5 to 6 ft)	
phenol	360 µg/kg U ^a	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
bis(2-chloroethyl)ether	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
2-chlorophenol	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
1,3-dichlorobenzene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
1,4-dichlorobenzene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
1,2-dichlorobenzene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
2-methylphenol	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
2,2'-oxybis(1-chloropropane)	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
4-methylphenol	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
n-nitroso-di-n-propylamine	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
hexachloroethane	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
nitrobenzene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
isophorone	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
2-nitrophenol	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
2,4-dimethylphenol	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
bis(2-chloroethoxy)methane	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
2,4-dichlorophenol	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
1,2,4-trichlorobenzene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-

Table H-39. (continued).

Analytical parameter	Location A		Location B		S
	Sample number T0910101EL 0.8 to 1.2 m (2.5 to 4 ft)	Sample number T0905201EL 6.7 to 7.4 m (22 to 24 ft)	Sample number T0905601EL 1.5 to 1.9 m (5 to 6 ft)	Sample number T0905602EL 1.5 to 1.9 m (5 to 6 ft)	
naphthalene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
4-chloroaniline	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
hexachlorobutadiene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
4-chloro-3-methylphenol	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
2-methylnaphthalene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
hexachlorocyclopentadiene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
2,4,6-trichlorophenol	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
2,4,5-trichlorophenol	900 µg/kg U	1,000 µg/kg U	980 µg/kg U	930 µg/kg U	1
2-chloronaphthalene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
2-nitroaniline	900 µg/kg U	1,000 µg/kg U	980 µg/kg U	930 µg/kg U	1
dimethylphthalate	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
acenaphthylene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
2,6-dinitrotoluene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
3-nitroaniline	900 µg/kg U	1,000 µg/kg U	980 µg/kg U	930 µg/kg U	1
acenaphthene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
2,4-dinitrophenol	900 µg/kg U	1,000 µg/kg U	980 µg/kg U	930 µg/kg U	1
4-nitrophenol	900 µg/kg U	1,000 µg/kg U	980 µg/kg U	930 µg/kg U	1
dibenzofuran	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
2,4-dinitrotoluene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
diethylphthalate	420 µg/kg U	490 µg/kg U	390 µg/kg U	370 µg/kg U	-
4-chlorophenyl-phenylether	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-
fluorene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	-

Table H-39. (continued).

Analytical parameter	Location A		Location B		Sa n (
	Sample number T0910101EL 0.8 to 1.2 m (2.5 to 4 ft)	Sample number T0905201EL 6.7 to 7.4 m (22 to 24 ft)	Sample number T0905601EL 1.5 to 1.9 m (5 to 6 ft)	Sample number T0905602EL 1.5 to 1.9 m (5 to 6 ft)	
4-nitroaniline	900 µg/kg U	1,000 µg/kg U	980 µg/kg U	930 µg/kg U	1
4,6-dinitro-2-methylphenol	900 µg/kg U	1,000 µg/kg U	980 µg/kg U	930 µg/kg U	1
n-nitrosodiphenylamine (1)	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
4-bromophenyl-phenylether	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
hexachlorobenzene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
pentachlorophenol	900 µg/kg U	1,000 µg/kg U	980 µg/kg U	930 µg/kg U	1
phenanthrene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
anthracene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
carbazole	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
di-n-butylphthalate	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
fluoranthene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
pyrene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
butylbenzylphthate	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
3,3'-dichlorobenzidine	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
benzo(a)anthracene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
chrysene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
bis(2-ethylhexyl)phthalate	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
di-n-octylphthalate	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
benzo(k)fluoranthene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
benzo(a)perylene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4
indeno(1,2,3-cd)pyrene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	4

Table H-39. (continued).

Analytical parameter	Location A		Location B		S
	Sample number T0910101EL 0.8 to 1.2 m (2.5 to 4 ft)	Sample number T0905201EL 6.7 to 7.4 m (22 to 24 ft)	Sample number T0905601EL 1.5 to 1.9 m (5 to 6 ft)	Sample number T0905602EL 1.5 to 1.9 m (5 to 6 ft)	
dibenz(a,h)anthracene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	
benzo(g,h,i)perylene	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	
tributylphosphate ^b	360 µg/kg U	400 µg/kg U	390 µg/kg U	370 µg/kg U	

a. U – indicates the compound was analyzed for, but not detected.
b. Field duplicate sample.

Table H-40. PCB analytical results for the 1993 Phase II TSF-09/18 boring subsurface soil samples.

Analytical parameter	Location A		Location B		
	Sample number T0910101PC (2.5 to 4 ft)	Sample number T0905201PC (20 to 22 ft)	Sample number T0905601PC ^a (5 to 6 ft)	Sample number T0905602PC ^a (5 to 6 ft)	Sample number T0905603PC (0 to 1 ft)
Aroclor-1016	87 µg/kg U	97 µg/kg U	95 µg/kg U	89 µg/kg U	490 µ
Aroclor-1221	87 µg/kg U	97 µg/kg U	95 µg/kg U	89 µg/kg U	490 µ
Aroclor-1232	87 µg/kg U	97 µg/kg U	95 µg/kg U	89 µg/kg U	490 µ
Aroclor-1242	87 µg/kg U	97 µg/kg U	95 µg/kg U	89 µg/kg U	490 µ
Aroclor-1248	87 µg/kg U	97 µg/kg U	95 µg/kg U	89 µg/kg U	490 µ
Aroclor-1254	170 µg/kg U	190 µg/kg U	190 µg/kg U	180 µg/kg U	1,085
Aroclor-1260	170 µg/kg U	190 µg/kg U	190 µg/kg U	180 µg/kg U	980 µ

a. Field duplicate samples.

U = Indicates the compound was analyzed for, but not detected.

D = Identifies all compounds identified in an analysis at a secondary dilution factor.

Table H-41. 1993 Phase II inorganic analytical results for the TSF-09/18 boring subsurface soil samples.

Sample number	Sample location	Sample depth	Analytes			
			Barium	Cadmium	Chromium	Lead
T0910101LM	A	2.5 to 4 ft	124.0 mg/kg	1.3 mg/kg	21.0 mg/kg	17.3 mg/kg S
T0905101LM	A	20 to 22 ft	236.0 mg/kg	2.4 mg/kg	32.2 mg/kg	27.9 mg/kg S
T0905610LM	B	6 to 7 ft	99.6 mg/kg	1.2 mg/kg	14.2 mg/kg	26.7 mg/kg S
T0905602LM	C	0 to 2.5 ft	201.0 mg/kg	2.3 mg/kg	25.5 mg/kg	23.5 mg/kg S
T0905702LM	C	18 to 20 ft	253.0 mg/kg	2.7 mg/kg	31.7 mg/kg	17.9 mg/kg S

S = Value was determined by the MSA.

U = Indicates the analyte was analyzed for, but not detected.

B = Value is less than the contract-required detection limit (CRDL), but greater than the IDL.

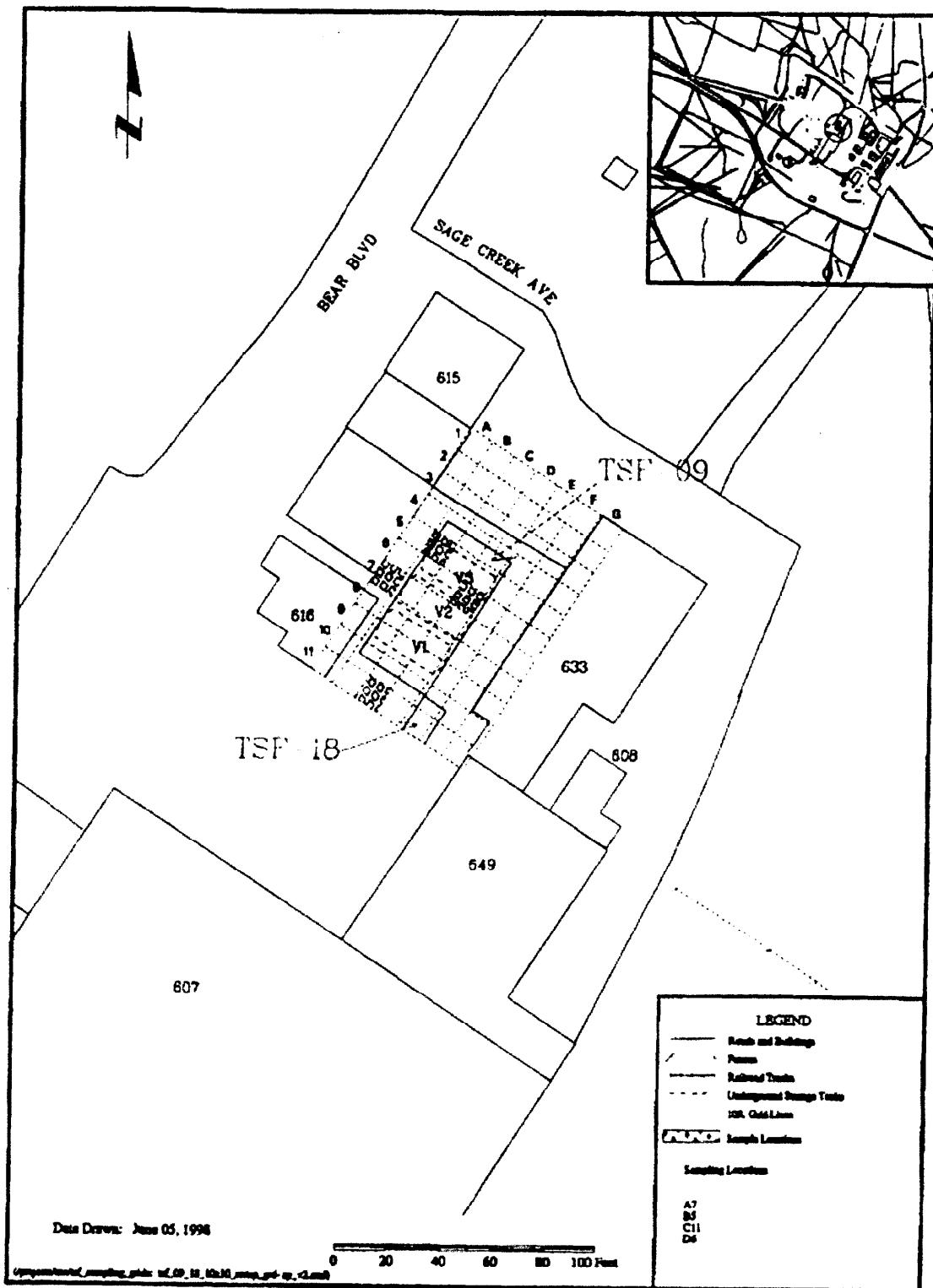


Figure H-8. TSF-09 and TSF-18 1998 soil sampling grid.

Table H-42. 1998 soil sampling results, soil surrounding V-Tanks.

Sample ID	Dilution Factors TCPL VOCs/ VOCs/PCBs/ Metals	Interval (ft)							T v Ch			
		Sample Date	Grid	Northing (ft)	Easting (ft)	Min	Max	Date Analyzed TCPL VOCs	Date Analyzed CLP VOCs	Date Analyzed PCBs	Date Analyzed RCRA Metals	ug/ ug/
1WG00101	NA/1/1/NA	6/29/1998	QC	NA	NA	NA	NA	Not Analyzed	7/10/1998	8/15/1998	Not Analyzed	[Hatched]
1WG00201	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	0	2.5	7/17/1998	7/10/1998	8/15/1998	7/17/1998	10
1WG00301	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	0	2.5	7/18/1998	7/13/1998	8/15/1998	7/17/1998	10
1WG00401	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	0	2.5	7/17/1998	7/9/1998	8/15/1998	7/17/1998	10
1WG00501	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	0	2.5	7/18/1998	7/11/1998	8/15/1998	7/17/1998	10
1WG00502	NA/1/1/Unknown	6/30/1998	D4	795935.79	358237.07	0	2.5	Not Analyzed	7/12/1998	9/3/1998	7/17/1998	[Hatched]
1WG00601	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	5	7.5	7/20/1998	7/10/1998	8/15/1998	7/17/1998	10
1WG00701	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	5	7.5	7/18/1998	7/11/1998	8/15/1998	7/17/1998	10
1WG00801	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	5	7.5	7/17/1998	7/9/1998	8/15/1998	7/17/1998	10
1WG00901	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	5	7.5	7/18/1998	7/12/1998	9/3/1998	7/17/1998	10
1WG01001	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	7.5	10	7/20/1998	7/10/1998	8/15/1998	7/17/1998	10
1WG01101	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	7.5	10	7/18/1998	7/11/1998	8/15/1998	7/17/1998	10
1WG01201	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	7.5	10	7/17/1998	7/10/1998	8/15/1998	7/17/1998	10
1WG01301	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	7.5	10	7/20/1998	7/12/1998	9/3/1998	7/17/1998	[Hatched] 10
1WG01401	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	10	12.5	Samples Taken for Physical Properties Only				[Hatched]
1WG01501	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	15	17.5	Samples Taken for Physical Properties Only				[Hatched]
1WG01601	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	17.5	20	Samples Taken for Physical Properties Only				[Hatched]

Table H-42. (continued).

Sample ID	Dilution Factors TCLP VOCs/ VOCs/PCBs/ Metals	Interval (ft)							Date Analyzed TCLP VOCs	Date Analyzed CLP VOCs	Date Analyzed PCBs	Date Analyzed RCRA Metals	TC Carl Tet chlor ug/L
		Sample Date	Grid	Northing (ft)	Easting (ft)	Min	Max						
1WG00101	NA/1/1/NA	6/29/1998	QC	NA	NA	NA	NA	Not Analyzed	7/10/1998	8/15/1998	Not Analyzed		
1WG00201	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	0	2.5	7/17/1998	7/10/1998	8/15/1998	7/17/1998	501	
1WG00301	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	0	2.5	7/18/1998	7/13/1998	8/15/1998	7/17/1998	501	
1WG00401	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	0	2.5	7/17/1998	7/9/1998	8/15/1998	7/17/1998	501	
1WG00501	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	0	2.5	7/18/1998	7/11/1998	8/15/1998	7/17/1998	501	
1WG00502	NA/1/1/Unknown	6/30/1998	D4	795935.79	358237.07	0	2.5	Not Analyzed	7/12/1998	9/3/1998	7/17/1998		
1WG00601	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	5	7.5	7/20/1998	7/10/1998	8/15/1998	7/17/1998	501	
1WG00701	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	5	7.5	7/18/1998	7/11/1998	8/15/1998	7/17/1998	501	
1WG00801	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	5	7.5	7/17/1998	7/9/1998	8/15/1998	7/17/1998	501	
1WG00901	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	5	7.5	7/18/1998	7/12/1998	9/3/1998	7/17/1998	501	
1WG01001	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	7.5	10	7/20/1998	7/10/1998	8/15/1998	7/17/1998	501	
1WG01101	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	7.5	10	7/18/1998	7/11/1998	8/15/1998	7/17/1998	501	
1WG01201	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	7.5	10	7/17/1998	7/10/1998	8/15/1998	7/17/1998	501	
1WG01301	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	7.5	10	7/20/1998	7/12/1998	9/3/1998	7/17/1998	501	
1WG01401	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	10	12.5	Samples Taken for Physical Properties Only					
1WG01501	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	15	17.5	Samples Taken for Physical Properties Only					
1WG01601	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	17.5	20	Samples Taken for Physical Properties Only					

Table H-42. (continued).

Sample ID	Dilution Factors TCLP VOCs/ VOCs/PCBs/ Metals	Interval (ft)								SW-846 8260A Methylene Chloride		
		Sample Date	Grid	Northing (ft)	Easting (ft)	Min	Max	Date Analyzed TCLP VOCs	Date Analyzed CLP VOCs	Date Analyzed PCBs	Date Analyzed RCRA Metals	ug/kg flag
1WG00101	NA/1/1/NA	6/29/1998	QC	NA	NA	NA	NA	Not Analyzed	7/10/1998	8/15/1998	Not Analyzed	Sampled, N
1WG00201	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	0	2.5	7/17/1998	7/10/1998	8/15/1998	7/17/1998	6U
1WG00301	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	0	2.5	7/18/1998	7/13/1998	8/15/1998	7/17/1998	6U
1WG00401	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	0	2.5	7/17/1998	7/9/1998	8/15/1998	7/17/1998	6U
1WG00501	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	0	2.5	7/18/1998	7/11/1998	8/15/1998	7/17/1998	6U
1WG00502	NA/1/1/Unknown	6/30/1998	D4	795935.79	358237.07	0	2.5	Not Analyzed	7/12/1998	9/3/1998	7/17/1998	6U
1WG00601	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	5	7.5	7/20/1998	7/10/1998	8/15/1998	7/17/1998	6U
1WG00701	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	5	7.5	7/18/1998	7/11/1998	8/15/1998	7/17/1998	6U
1WG00801	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	5	7.5	7/17/1998	7/9/1998	8/15/1998	7/17/1998	6U
1WG00901	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	5	7.5	7/18/1998	7/12/1998	9/3/1998	7/17/1998	6U
1WG01001	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	7.5	10	7/20/1998	7/10/1998	8/15/1998	7/17/1998	6U
1WG01101	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	7.5	10	7/18/1998	7/11/1998	8/15/1998	7/17/1998	6U
1WG01201	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	7.5	10	7/17/1998	7/10/1998	8/15/1998	7/17/1998	6U
1WG01301	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	7.5	10	7/20/1998	7/12/1998	9/3/1998	7/17/1998	6U
1WG01401	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	10	12.5	Samples Taken for Physical Properties Only				Sampled, N
1WG01501	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	15	17.5	Samples Taken for Physical Properties Only				Sampled, N
1WG01601	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	17.5	20	Samples Taken for Physical Properties Only				Sampled, N

Table H-42. (continued).

Sample ID	Dilution Factors TCLP VOCs/ VOCs/PCBs/ Metals	Interval (ft)								SW-846 8260A Tetrachloro- ethene		
		Sample Date	Grid	Northing (ft)	Easting (ft)	Min	Max	Date Analyzed TCLP VOCs	Date Analyzed CLP VOCs	Date Analyzed PCBs	Date Analyzed RCRA Metals	ug/kg
IWG00101	NA/1/1/NA	6/29/1998	QC	NA	NA	NA	NA	Not Analyzed	7/10/1998	8/15/1998	Not Analyzed	5 ug/LU
IWG00201	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	0	2.5	7/17/1998	7/10/1998	8/15/1998	7/17/1998	6U
IWG00301	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	0	2.5	7/18/1998	7/13/1998	8/15/1998	7/17/1998	5U
IWG00401	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	0	2.5	7/17/1998	7/9/1998	8/15/1998	7/17/1998	6U
IWG00501	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	0	2.5	7/18/1998	7/11/1998	8/15/1998	7/17/1998	6U
IWG00502	NA/1/1/Unknown	6/30/1998	D4	795935.79	358237.07	0	2.5	Not Analyzed	7/12/1998	9/3/1998	7/17/1998	6U
IWG00601	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	5	7.5	7/20/1998	7/10/1998	8/15/1998	7/17/1998	6U
IWG00701	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	5	7.5	7/18/1998	7/11/1998	8/15/1998	7/17/1998	6U
IWG00801	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	5	7.5	7/17/1998	7/9/1998	8/15/1998	7/17/1998	6U
IWG00901	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	5	7.5	7/18/1998	7/12/1998	9/3/1998	7/17/1998	6U
IWG01001	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	7.5	10	7/20/1998	7/10/1998	8/15/1998	7/17/1998	6U
IWG01101	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	7.5	10	7/18/1998	7/11/1998	8/15/1998	7/17/1998	6U
IWG01201	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	7.5	10	7/17/1998	7/10/1998	8/15/1998	7/17/1998	6U
IWG01301	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	7.5	10	7/20/1998	7/12/1998	9/3/1998	7/17/1998	6U
IWG01401	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	10	12.5	Samples Taken for Physical Properties Only			Hatched Box	
IWG01501	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	15	17.5	Samples Taken for Physical Properties Only			Hatched Box	
IWG01601	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	17.5	20	Samples Taken for Physical Properties Only			Hatched Box	

Table H-42. (continued).

Sample ID	Dilution Factors		Grid	Northing (ft)	Easting (ft)	Interval (ft)				Aroclor-1248			
	TCLP PCBs/Metals	OCs/VOCs/Sample Date				Min	Max	Date Analyzed TCLP VOCs	Date Analyzed CLP VOCs	Date Analyzed PCBs	Date Analyzed RCRA Metals	ug/kg	flag
IWG00101	NA/1/1/NA	6/29/1998	QC	NA	NA	NA	NA	Not Analyzed	7/10/1998	8/15/1998	Not Analyzed	1 ug/LU	
IWG00201	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	0	2.5	7/17/1998	7/10/1998	8/15/1998	7/17/1998	33U	
IWG00301	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	0	2.5	7/18/1998	7/13/1998	8/15/1998	7/17/1998	33U	
IWG00401	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	0	2.5	7/17/1998	7/9/1998	8/15/1998	7/17/1998	33U	
IWG00501	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	0	2.5	7/18/1998	7/11/1998	8/15/1998	7/17/1998	33U	
IWG00502	NA/1/1/Unknown	6/30/1998	D4	795935.79	358237.07	0	2.5	Not Analyzed	7/12/1998	9/3/1998	7/17/1998	33UJ	
IWG00601	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	5	7.5	7/20/1998	7/10/1998	8/15/1998	7/17/1998	33U	
IWG00701	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	5	7.5	7/18/1998	7/11/1998	8/15/1998	7/17/1998	33U	
IWG00801	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	5	7.5	7/17/1998	7/9/1998	8/15/1998	7/17/1998	33U	
IWG00901	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	5	7.5	7/18/1998	7/12/1998	9/3/1998	7/17/1998	33UJ	
IWG01001	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	7.5	10	7/20/1998	7/10/1998	8/15/1998	7/17/1998	33U	
IWG01101	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	7.5	10	7/18/1998	7/11/1998	8/15/1998	7/17/1998	33U	
IWG01201	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	7.5	10	7/17/1998	7/10/1998	8/15/1998	7/17/1998	33U	
IWG01301	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	7.5	10	7/20/1998	7/12/1998	9/3/1998	7/17/1998	33UJ	
IWG01401	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	10	12.5	Samples Taken for Physical Properties Only					
IWG01501	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	15	17.5	Samples Taken for Physical Properties Only					
IWG01601	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	17.5	20	Samples Taken for Physical Properties Only					

Table H-42. (continued).

Sample ID	Dilution Factors TCLP VOCs/ VOCs/PCBs/ Metals	Interval (ft)									
		Sample Date	Grid	Northing (ft)	Easting (ft)	Min	Max	Date Analyzed TCLP VOCs	Date Analyzed CLP VOCs	Date Analyzed PCBs	Date Analyzed RCRA Metals
IWG00101	NA/1/1/NA	6/29/1998	QC	NA	NA	NA	NA	Not Analyzed	7/10/1998	8/15/1998	Not Analyzed
IWG00201	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	0	2.5	7/17/1998	7/10/1998	8/15/1998	7/17/1998
IWG00301	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	0	2.5	7/18/1998	7/13/1998	8/15/1998	7/17/1998
IWG00401	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	0	2.5	7/17/1998	7/9/1998	8/15/1998	7/17/1998
IWG00501	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	0	2.5	7/18/1998	7/11/1998	8/15/1998	7/17/1998
IWG00502	NA/1/1/Unknown	6/30/1998	D4	795935.79	358237.07	0	2.5	Not Analyzed	7/12/1998	9/3/1998	7/17/1998
IWG00601	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	5	7.5	7/20/1998	7/10/1998	8/15/1998	7/17/1998
IWG00701	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	5	7.5	7/18/1998	7/11/1998	8/15/1998	7/17/1998
IWG00801	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	5	7.5	7/17/1998	7/9/1998	8/15/1998	7/17/1998
IWG00901	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	5	7.5	7/18/1998	7/12/1998	9/3/1998	7/17/1998
IWG01001	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	7.5	10	7/20/1998	7/10/1998	8/15/1998	7/17/1998
IWG01101	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	7.5	10	7/18/1998	7/11/1998	8/15/1998	7/17/1998
IWG01201	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	7.5	10	7/17/1998	7/10/1998	8/15/1998	7/17/1998
IWG01301	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	7.5	10	7/20/1998	7/12/1998	9/3/1998	7/17/1998
IWG01401	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	10	12.5	Samples Taken for Physical Properties Only			
IWG01501	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	15	17.5	Samples Taken for Physical Properties Only			
IWG01601	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	17.5	20	Samples Taken for Physical Properties Only			

Table H-42. (continued).

Sample ID	Dilution Factors TCLP VOCs/ VOCs/PCBs/ Metals	Interval (ft)									
		Sample Date	Grid	Northing (ft)	Easting (ft)	Min	Max	Date Analyzed TCLP VOCs	Date Analyzed CLP VOCs	Date Analyzed PCBs	Date An RCRA
IWG00101	NA/1/1/NA	6/29/1998	QC	NA	NA	NA	NA	Not Analyzed	7/10/1998	8/15/1998	Not An
IWG00201	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	0	2.5	7/17/1998	7/10/1998	8/15/1998	7/17/
IWG00301	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	0	2.5	7/18/1998	7/13/1998	8/15/1998	7/17/
IWG00401	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	0	2.5	7/17/1998	7/9/1998	8/15/1998	7/17/
IWG00501	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	0	2.5	7/18/1998	7/11/1998	8/15/1998	7/17/
IWG00502	NA/1/1/Unknown	6/30/1998	D4	795935.79	358237.07	0	2.5	Not Analyzed	7/12/1998	9/3/1998	7/17/
IWG00601	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	5	7.5	7/20/1998	7/10/1998	8/15/1998	7/17/
IWG00701	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	5	7.5	7/18/1998	7/11/1998	8/15/1998	7/17/
IWG00801	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	5	7.5	7/17/1998	7/9/1998	8/15/1998	7/17/
IWG00901	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	5	7.5	7/18/1998	7/12/1998	9/3/1998	7/17/
IWG01001	10/1/1/Unknown	6/29/1998	A7	795943.80	358206.45	7.5	10	7/20/1998	7/10/1998	8/15/1998	7/17/
IWG01101	10/1/1/Unknown	6/30/1998	B5	795955.13	358225.75	7.5	10	7/18/1998	7/11/1998	8/15/1998	7/17/
IWG01201	10/1/1/Unknown	6/29/1998	C10	795899.37	358201.46	7.5	10	7/17/1998	7/10/1998	8/15/1998	7/17/
IWG01301	10/1/1/Unknown	6/30/1998	D6	795935.79	358237.07	7.5	10	7/20/1998	7/12/1998	9/3/1998	7/17/
IWG01401	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	10	12.5	Samples Taken for Physical Properties Only			
IWG01501	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	15	17.5	Samples Taken for Physical Properties Only			
IWG01601	NA/NA/NA/	6/30/1998	D6	795935.79	358237.07	17.5	20	Samples Taken for Physical Propcrties Only			

TAN 1704
Valve Box Liquid

Table H-43. 2000 valve box liquid sample results.

Sample Number: TAN37201

Sample Location: TAN-1704 valve box

Matrix: Aqueous (liquid)

Analysis Type	Analyte	Result	Concentration Code/ Data Qualifier Code
TCLP Inorganic	Arsenic	170 ($\mu\text{g/L}$)	U
	Barium	37	B/U
	Cadmium	152	B
	Chromium	80	U
	Lead	380	U
	Selenium	220	U
	Silver	70	UJ
	Mercury	0.600	U
Radionuclide	Gross Alpha	$8.50\text{E+01} \pm 3.62\text{E+01}$ (pCi/L)	J
	Sr-90	$4.48\text{E+05} \pm 1.38\text{E+03}$	—
	Gross Beta	$9.08\text{E+05} \pm 3.62\text{E+03}$	—
	Mn-54	$1.75\text{E+01} \pm 2.25\text{E+01}$	U
	Co-58	$-1.16\text{E+01} \pm 2.47\text{E+01}$	U
	Co-60	$1.15\text{E+02} \pm 1.37\text{E+01}$	—
	Zn-65	$8.97\text{E+01} \pm 4.39\text{E+01}$	J
	Nb-95	$3.66\text{E+01} \pm 2.63\text{E+01}$	U
	Zr-95	$-4.91\text{E+01} \pm 4.47\text{E+01}$	U
	Ru-103	$-4.09\text{E+02} \pm 1.54\text{E+02}$	U
	Ru-106	$-2.27\text{E+03} \pm 7.74\text{E+02}$	U
	Ag-108m	$-1.71\text{E+01} \pm 2.45\text{E+01}$	U
	Ag-110m	$3.36\text{E+01} \pm 6.65\text{E+01}$	U
	Sb-125	$1.24\text{E+02} \pm 4.04\text{E+02}$	U
	Cs-134	$1.08\text{E+02} \pm 7.44\text{E+01}$	U
	Cs-137	$2.00\text{E+05} \pm 3.04\text{E+03}$	—
	Ce-144	$1.50\text{E+03} \pm 6.65\text{E+02}$	—
	Eu-152	$-1.10\text{E+02} \pm 1.11\text{E+02}$	U
	Eu-154	$1.39\text{E+02} \pm 6.67\text{E+01}$	J
	Eu-155	$-1.66\text{E+02} \pm 2.97\text{E+02}$	U

Table H-43. (continued).

Analysis Type	Analyte	Result	Concentration Code/ Data Qualifier Code
	Ra-226	8.26E+01±2.65E+02	U
	U-235	-2.72E+02±6.48E+02	U
	Am-241	4.27E+02±5.46E+02	U
Volatile Organics Compounds	Chloromethane	10 ($\mu\text{g/L}$)	U
	Vinyl chloride	10	U
	Bromomethane	10	U
	Chloroethane	10	U
	1,1-dichloroethene	10	U
	Carbon disulfide	10	U
	Methylene chloride	10	U
	Acetone	10	R
	Trans-1,2- dichloroethene	10	U
	1,1-dichloroethane	10	U
	Cis-1,2-dichloroethene	10	U
	Chloroform	10	U
	Carbon tetrachloride	10	U
	1,1,1-trichloroethane	10	U
	2-butanone	10	U
	Benzene	10	U
	1,2-dichloroethane	10	U
	Trichloroethene	7	J
	1,2-dichloropropane	10	U
	Bromodichloromethane	10	U
	Cis-1,3- dichloropropene	10	U
	Toluene	10	U
	Tetrachloroethene	10	U
	4-methyl-2-pentanone	10	U
	Trans-1,3- dichloropropene	10	U
	2-hexanone	10	U
	1,1,2-trichloroethane	10	U

Table H-43. (continued).

Analysis Type	Analyte	Result	Concentration Code/ Data Qualifier Code
	Dibromochloromethane	10	U
	Chlorobenzene	10	U
	Ethylbenzene	10	U
	M,p-xlenes	10	U
	Styrene	10	U
	Bromoform	10	U
	1,1,2,2-tetrachloroethane	10	U
Volatile Organics (TCLP)	Vinyl chloride	100 ($\mu\text{g/L}$)	UJ
	1,1-dichloroethene	100	UJ
	Chloroform	100	UJ
	Carbon tetrachloride	100	UJ
	2-butanone	100	UJ
	Benzene	100	UJ
	1,2-dichloroethane	100	UJ
	Trichloroethene	100	UJ
	Tetrachloroethene	100	UJ
	Chlorobenzene	100	UJ
	1,4-dichlorobenzene	100	UJ
Semivolatile Organics	Pyridine	100 ($\mu\text{g/L}$)	U
	1,4-dichlorobenzene	100	U
	2-methylphenol	100	U
	Hexachloroethane	100	U
	Nitrobenzene	100	U
	Hexachlorobutadiene	100	U
	2,4,6-Trichlorophenol	100	U
	2,4,5-trichlorophenol	100	U
	2,4-dinitrotoluene	100	U
	Hexachlorobenzene	100	U
	Pentachlorophenol	500	U
	3&4-methylphenol	100	U

Table H-43. (continued).

Analysis Type	Analyte	Result	Concentration Code/ Data Qualifier Code
Semivolatile Organics (PCBs)	Aroclor-1016	100	U
	Aroclor-1221	200	U
	Aroclor-1232	100	U
	Aroclor-1242	100	U
	Aroclor-1248	100	U
	Aroclor-1254	100	U
	Aroclor-1260	100	U

VOC analysis:

R – Reject nondetected results for acetone, R, due to a continuing calibration relative response factor (RRF) less than 0.05.

U – Not detected, detection limit presented.

B – Blank contamination.

J – Indicates an estimated value.

– Accept data, but qualify positive results below the reporting limit as estimated, J, due to uncertainty near the detection limit.

Table H-44. Valve box liquid results duplicate sample.

Sample Number: TAN37202

Sample Location: TAN-1704 valve box

Matrix: Aqueous (liquid)

Analysis Type	Analyte	Result	Concentration Code/ Data Qualifier Code
TCLP Inorganic	Arsenic	170 ($\mu\text{g/L}$)	U
	Barium	35	B/U
	Cadmium	20	U
	Chromium	80	U
	Lead	380	U
	Selenium	220	U
	Silver	70	UJ
Radionuclide	Mercury	0.600	U
	Gross alpha	4.42E+01±3.06E+01	U
	Sr-90	4.08E+05±1.24E+03	
	Gross beta	8.59E+05±1.81E+03	
	Mn-54	-1.58E+01±1.30E+01	U
	Co-58	-4.81E+01±1.57E+01	U
	Co-60	1.07E+02±1.01E+01	
	Zn-65	2.17E+01±3.04E+01	U
	Nb-95	2.38E+00±1.66E+01	U
	Zr-95	3.42E+01±2.54E+01	U
	Ru-103	-5.52E+01±8.51E+01	U
	Ru-106	3.13E+02±4.45E+02	U
	Ag-108m	1.70E+01±1.33E+01	U
	Ag-110m	2.08E+01±4.41E+01	U
	Sb-125	-2.77E+00±2.43E+02	U
	Cs-134	6.64E+01±6.64E+01	U
	Cs-137	1.97E+05±2.52E+03	
	Ce-144	-1.38E+02±2.73E+02	U
	Eu-152	5.59E+00±7.21E+01	U
	Eu-154	-3.14E+01±4.40E+01	U
	Eu-155	1.46E+01±1.05E+02	U

Table H-44. (continued).

Analysis Type	Analyte	Result	Concentration Code/ Data Qualifier Code
	Ra-226	-1.03E+02±1.35E+02	U
	U-235	5.74E+01±2.68E+02	U
	Am-241	-1.50E+02±1.61E+02	U
Volatile Organics Compounds	Chloromethane	10 ($\mu\text{g/L}$)	U
	Vinyl chloride	10	U
	Bromomethane	10	U
	Chloroethane	10	U
	1,1-dichloroethene	10	U
	Carbon disulfide	10	U
	Methylene chloride	10	U
	Acetone	10	R
	Trans-1,2- dichloroethene	10	U
	1,1-dichloroethane	10	U
	Cis-1,2-dichloroethene	10	U
	Chloroform	10	U
	Carbon tetrachloride	10	U
	1,1,1-trichloroethane	10	U
	2-butanone	10	U
	Benzene	10	U
	1,2-dichloroethane	10	U
	Trichloroethene	6.9	J
	1,2-dichloropropane	10	U
	Bromodichloromethane	10	U
	Cis-1,3- dichloropropene	10	U
	Toluene	10	U
	Tetrachloroethene	10	U
	4-methyl-2-pentanone	10	U
	Trans-1,3- dichloropropene	10	U
	2-hexanone	9.1	J
	1,1,2-trichloroethane	10	U

Table H-44. (continued).

Analysis Type	Analyte	Result	Concentration Code/ Data Qualifier Code
	Dibromochloromethane	10	U
	Chlorobenzene	10	U
	Ethylbenzene	10	U
	M,p-xylenes	10	U
	Styrene	10	U
	Bromoform	10	U
	1,1,2,2-tetrachloroethane	10	U
Volatile Organics (TCLP)	Vinyl chloride	100 ($\mu\text{g/L}$)	UJ
	1,1-dichloroethene	100	UJ
	Chloroform	100	UJ
	Carbon tetrachloride	100	UJ
	2-butanone	100	UJ
	Benzene	100	UJ
	1,2-dichloroethane	100	UJ
	Trichloroethene	100	UJ
	Tetrachloroethene	100	UJ
	Chlorobenzene	100	UJ
	1,4-dichlorobenzene	100	UJ
Semivolatile Organics	Pyridine	100 ($\mu\text{g/L}$)	U
	1,4-dichlorobenzene	100	U
	2-methylphenol	100	U
	Hexachloroethane	100	U
	Nitrobenzene	100	U
	Hexachlorobutadiene	100	U
	2,4,6-Trichlorophenol	100	U
	2,4,5-trichlorophenol	100	U
	2,4-dinitrotoluene	100	U
	Hexachlorobenzene	100	U
	Pentachlorophenol	500	U
	3&4-methylphenol	100	U

Table H-44. (continued).

Analysis Type	Analyte	Result	Concentration Code/ Data Qualifier Code
Semivolatile Organics (PCBs)	Aroclor-1016	100	U
	Aroclor-1221	200	U
	Aroclor-1232	100	U
	Aroclor-1242	100	U
	Aroclor-1248	100	U
	Aroclor-1254	100	U
	Aroclor-1260	100	U

VOC analysis:

U – Not detected, detection limit presented.

R – Reject nondetected results for acetone, R, due to a continuing calibration relative response factor (RRF) less than 0.05.

J – Accept data, but qualify positive results below the reporting limit as estimated, J, due to uncertainty near the detection limit.